



CalPERS Investment Office Environmental Initiatives Annual Update

November 17, 2008

CalPERS | 2008 Environmental Update



- First annual cross-asset class update
- This presentation summarizes the work being done in programs and activities throughout the Investment Office.
- Leadership participation in numerous investor coalitions
 - Ceres
 - Investor Network on Climate Risk (INCR)
 - United Nations Principles for Responsible Investment (UN PRI)
 - United Nations Environmental Programme Financial Initiative (UNEPFI)
 - Global Warming Shareholder Campaign
 - P8 Group

CalPERS | 2008 Environmental Update



- Activities in the following areas will be covered:
 - Real Estate
 - Energy Efficiency
 - Green Fund
 - Global Equity
 - External Environmental Equity Managers
 - Corporate Governance
 - Environmental Strategies
 - Alternative Investment Management
 - Clean Energy and Technology Program Update
 - Inflation Linked Asset Class
 - Infrastructure Investment Policy
 - Cross-Asset Class Initiative
 - Manager Survey



Real Estate

Environmental Update

Real Estate | Environmental Update



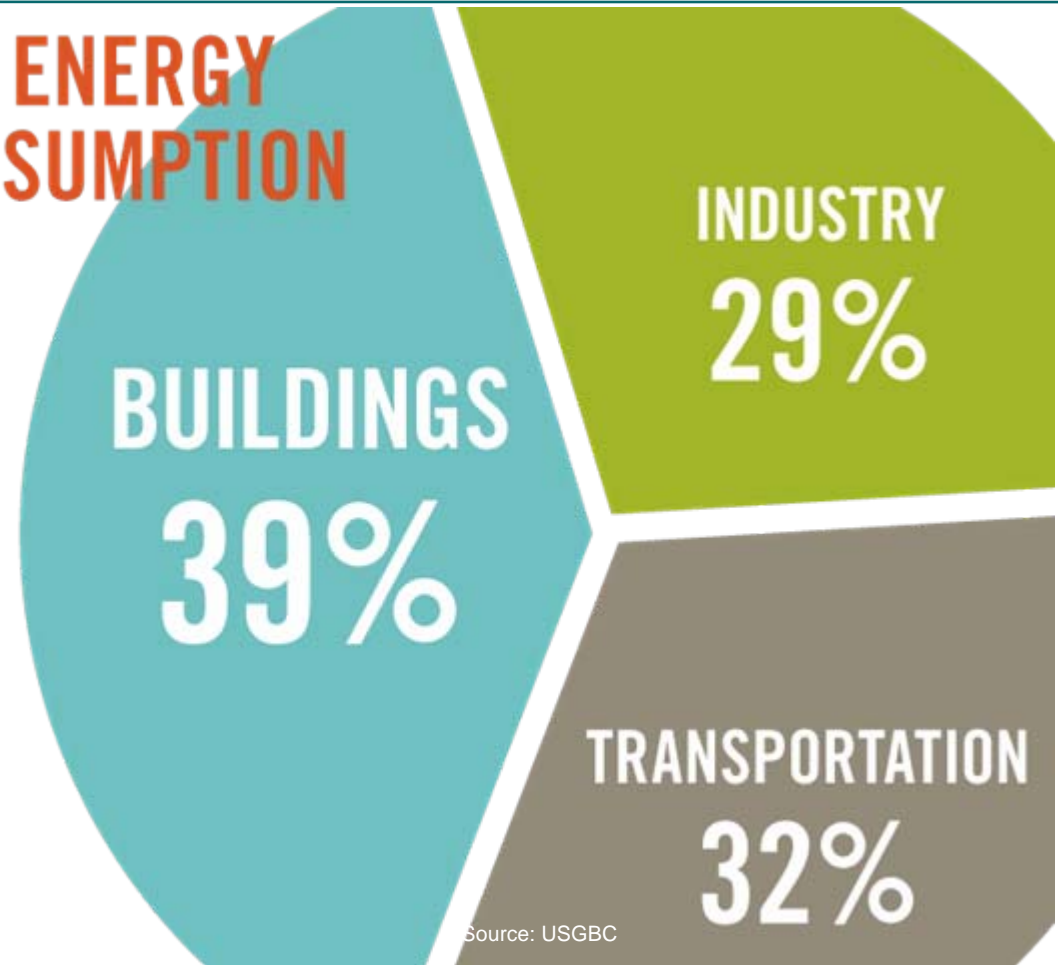
Buildings | Environmental Impact



“Buildings are the largest source of both energy consumption and greenhouse gas emissions in America as well as around the world.”

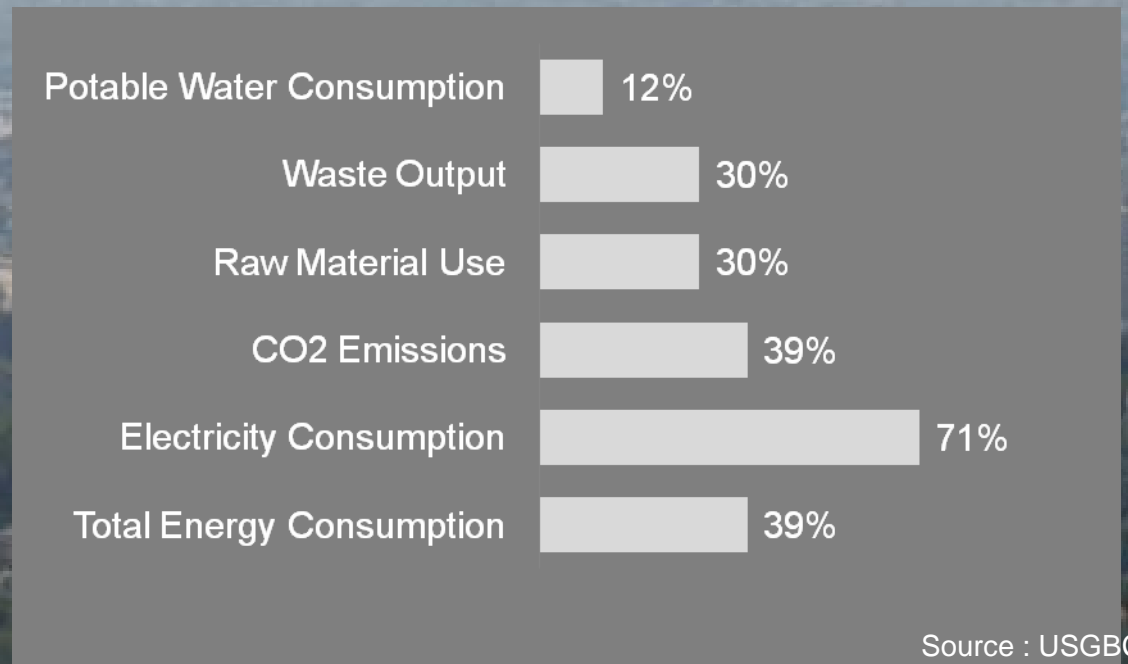
- *The American Institute of Architects*

U.S. ENERGY CONSUMPTION



Source: USGBC

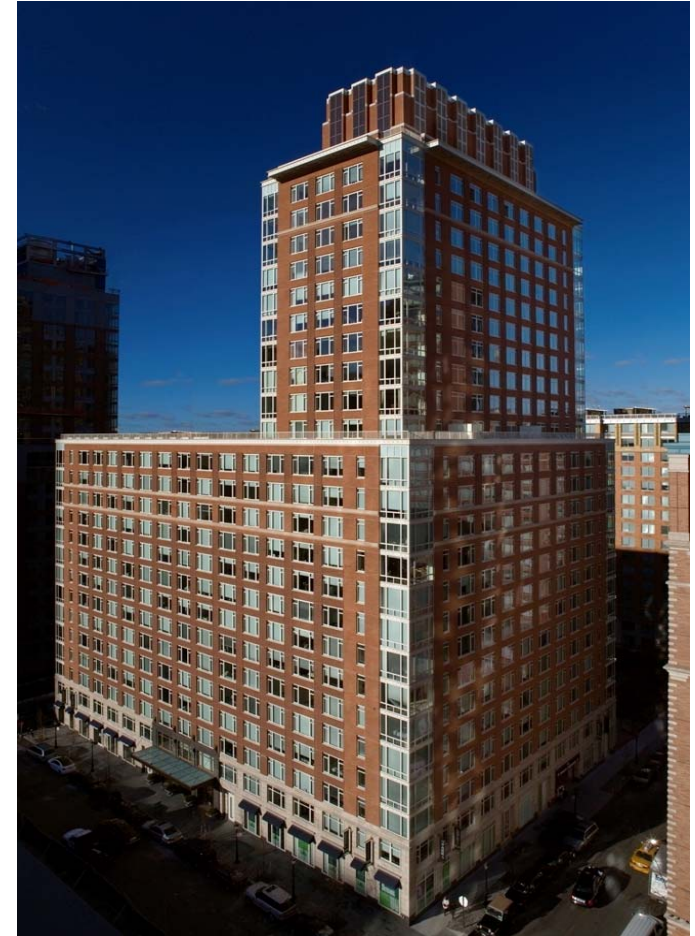
Why Do We Care? | Real Estate Sector's Environmental Impact



Real Estate | Energy Efficiency Goal



- CalPERS Investment Committee adopted the current Real Estate Environmental Initiative in December 2004
- **CalPERS Real Estate Environmental Initiative**
 - The Energy Efficiency Goal
 - 20% energy reduction over a five year period
 - Focus on Core portfolio
 - Voluntary program
 - Cost benefit analysis



Tribeca Green
New York City, NY
LEED-NC Gold

Energy Efficiency Goal | JDM Associates



- In 2007, Staff hired JDM Associates to complete the following:
 - Report 2007 progress toward goal
 - Determine best units of measure and reporting standards
 - Establish baseline years of energy consumption
 - Review prior years' reporting based on recommended calculation measurements and methodology

Energy Efficiency Goal | Methodology



- Important considerations when refining energy consumption data and how it can affect results:
 - Very large, diverse and dynamic portfolio
 - Multiple property types
 - Sample size varies annually
 - Only a small portion of the portfolio has remained constant since 2004
- The aggregate energy consumption reduction should be considered a representative, rather than an absolute, measure of partners' energy efficiency improvements

Energy Efficiency Goal | Results



- Results of the comprehensive review:
 - Revised reporting for prior years
 - New reporting of energy savings for 2007

	2005	2006	2007
Total Energy Consumption	1.6% increase	2.3% decrease	13.3% decrease

- Compared to the 2004 energy consumption baseline, the weighted total reduction in overall energy consumption was **12.5%**
- Methods for energy saving include, but are not limited to:
 - Meet and exceed LEED and California's Title 24 energy standards
 - Energy Star appliances
 - Install zoned and computerized HVAC systems

Energy Efficiency Goal | Will We Reach 20%



- CalPERS asked its partners for their feedback on the feasibility of achieving the additional 7.5% over two years to meet our 20% energy reduction goal
 - Investment partner responses varied, depending on:
 - Investment strategy and building type
 - Degree of control over day-to-day operations
 - Energy efficiency improvements that have already been completed
 - Partners generally expressed confidence in the ability to meet the remainder of the goal
 - Partners cautioned that the 7.5% balance of energy reduction may not be cost-effective to achieve in certain properties

Energy Efficiency Plan | Additional Greening Activities



- **Additional Greening Activities:**

- Waste Management
 - Using recycled content and recycling construction waste
- Water Conservation
 - Low-flow fixtures, irrigation controls, native plants
- Further Efforts
 - Storm water runoff and indoor air quality control

- **Results of partners' efforts:**

- Increased environmental responsiveness
- Enhanced sustainability across portfolios
- Acknowledgment that environmental sustainability is good business practice



Real Estate | Hines CalPERS Green Fund



- In 2006, CalPERS committed \$225M to the Hines CalPERS Green Fund (HCG)
 - HCG allows CalPERS to take a leadership role by only developing high performance, sustainable office buildings certifiable through the LEED Core & Shell (LEED-CS) program
 - Represents approximately \$725M of development projects
 - Tower 333 was the first building on the West Coast to receive LEED-CS pre-certification
 - Main Place is an infill project replacing one of the most blighted blocks in downtown Houston. It is LEED Silver Pre-Certified.



Tower 333
Bellevue, WA
LEED-CS Certified

Real Estate | Staff's Additional Efforts



- **UNEP FI PRI Working Group**
- Staff helped draft a best practices report for PRI signatories to understand how to apply the Principles to property assets
- CalPERS Real Estate integrates the Principles, consistent with its fiduciary duty through the following programs and initiatives:
 - Energy Efficiency Goal – Green Wave
 - Responsible Contractor Program Policy
 - The California Urban Real Estate Program
 - Hines CalPERS Green Fund

Real Estate | Staff's Additional Efforts



- CalPERS Real Estate staff assisted in drafting the section of the 2008 UN Investor Network on Climate Risk Action Plan entitled Improve the Energy Performance of Real Estate Portfolios and Investments.
- The section states the following goals:
 - Aim for a 20% reduction over a three-year period in energy used in core real estate investment portfolios, using standardized units of measurement, performance baselines, and regular reporting on measures taken and actual energy performance.
 - Incorporate green building standards (such as LEED and Energy Star) as a factor in making investment decisions.

Real Estate | Looking Forward



- Position CalPERS at the leading edge of environmentally responsive investments
 - Real Estate Unit's Strategic Plan calls for a green policy to be initiated
 - Discussions with industry leaders
 - Creation of new goals
 - Assure that sustainability is a part of investment process from start to finish
 - Staff achieving LEED-AP (Accredited Professional) status

Main Place
Houston, TX
LEED-CS Silver Pre-Certified



Global Equity

Environmental Strategies

Global Equity |

External Environmental Equity Managers



- Stock portfolios in environmentally screened funds managed by leading active public equity investment managers with proven track records
- Portfolio Characteristics: environmentally-friendly universe; positive ESG factors; “eco-efficiency” ratings
- Environmental Manager Delegation: 0% - 0.5% of Global Equity
- 5 External Managers (3 U.S.; 2 Developed ex-U.S.)
- Assets Under Management: \$419 million (9/30/08)

Global Equity | External Environmental Equity Managers



- AXA Rosenberg Investment Mgmt.
- New Amsterdam Partners
- State Street Global Advisors (U.S.)
- Global Currents, LLC
- State Street Global Advisors (Dev ex-U.S.)

Global Equity |

External Environmental Equity Managers



Environmental External Equity Relative Performance	Year Ending 9/30/06*	Year Ending 9/30/07	Year Ending 9/30/08	Annualize Since Inception	Inception Date
Domestic Managers					
AXA Rosenberg	(3.21%)	3.15%	0.15%	(0.12%)	4/1/06
New Amsterdam Partners	(5.66%)	(2.49%)	2.68%	(1.58%)	2/1/06
State Street Global Advisors	(0.05%)	(2.13%)	(0.77%)	(1.20%)	6/1/06
International Managers					
Global Currents, LLC	(0.93%)	(5.39%)	2.08%	(0.94%)	5/1/06
State Street Global Advisors	2.70%	2.10%	0.35%	1.78%	3/1/06
Total Environmental	(2.11%)	(0.60%)	0.87%	(0.50%)	2/1/06

Source: State Street Bank Returns are net of fees and CFA compliant.

*Note: This is a partial year. The Total Environmental number includes returns from the KLD ETF liquidated at the end of July 2000

Global Equity | External Environmental Equity Managers



- **Next Steps:**
 - Monitor evolution of environmental investing
 - Explore “global” equity products
 - Targeted opportunities in companies that have an advantage in adapting to, or mitigating, climate change and other environmental issues
 - Internal strategies



Corporate Governance

Environmental Strategic Plan

Corporate Governance | Environmental Strategic Plan



- **Objective:**
 - To improve transparency and timely disclosure of environmental data related to risks and opportunities by pursuing macro and micro initiatives so investors can make more informed investment decisions.

Corporate Governance | Environmental Strategic Plan



- **Strategic Plan Implementation:**
 - Advocate policy reform through active leadership on boards, advisory committees, and collaborative investor coalitions
 - Encouraging and supporting global reform through legislative, regulatory, and investor forums
 - Promoting improved disclosure at individual companies through constructive engagement
 - Enhancing and executing CalPERS' proxy voting responsibilities to support improved environmental disclosure consistent with the Investment Committee's Global Principles of Accountable Corporate Governance

Corporate Governance | Environmental Strategic Plan



- **Leadership through Written Correspondence:**

- Securities & Exchange Commission: To emphasize growing importance of climate risk disclosure and need for interpretive guidance
- Securities & Exchange Commission: To urge SEC to pay careful attention to the implications of climate change and carbon-related regulations before finalizing new oil and gas reserves reporting
- National Association of Insurance Commissioners: To express concern over recent attempts to weaken the NAIC Climate Risk Disclosure Proposal by making key elements non-public
- Financial Accounting Standards Board: To express support for disclosing contingent liabilities such as quantifiable environmental liabilities

Corporate Governance | Environmental Strategic Plan



- **Advocating for Congressional Leaders to Address Climate Change:**
 - Setting targets (60-90% cuts in greenhouse gas emissions below 1990 levels) and timetable (by 2050) to reduce emissions.
 - Urging realignment of national policies and incentives to stimulate rapid deployment of clean technologies
 - Inclusion of strong renewable electricity standard and increased fuel economy standards

Corporate Governance | Environmental Strategic Plan



- **CalPERS Signatory to INCR:**
 - Committed to managing the System's investments; engaging companies, investors, and others; and supporting policy action consistent with fiduciary duty that addresses significant risks and opportunities associated with climate change
 - Recognition that the impacts of climate change will continue to be multi-dimensional – affecting corporations' abilities to secure the full range of necessary resources such as energy and water

Corporate Governance | Environmental Strategic Plan



- **In 2008, CalPERS joined INCR signatories and U.S. businesses and issued a new Call for Action:**
 - A mandatory national policy to contain and reduce national greenhouse gas emissions economy-wide
 - Realignment of incentives and other national policies to achieve climate objectives
 - Guidance from the SEC and other financial regulatory bodies on what material issues related to climate change companies should disclose

Corporate Governance | Environmental Strategic Plan



- **Targeted Company Initiatives through Carbon Disclosure Project (CDP):**
 - CDP provides global framework and standards for disclosing information regarding a companies environmental impact
 - 2008 company specific engagement strategy to actively promote environmental data disclosure at companies in the airline, auto, utilities, and oil and gas industries: 56 companies in 19 countries
 - Public elevation in 2009 of companies opting not to disclose information regarding environmental impacts

Corporate Governance | Environmental Strategic Plan



- **Targeted Company Initiatives through Proxy Voting:**
 - In 2008 to date, CalPERS has supported approximately 225 shareowner proposals seeking improved environmental reporting or disclosure
 - In 2008, CalPERS' Global Principles were enhanced by adding reference to the 14-point Ceres Climate Change Governance Checklist

Corporate Governance | Environmental Strategic Plan



- **Dedicated Global Principle of Accountable Corporate Governance:**
 - “To ensure sustainable long-term returns, companies should provide accurate and timely disclosure of environmental risks and opportunities through adoption of policies or objectives, such as those associated with climate change. Companies should apply the Global Framework for Climate Risk Disclosure when providing such disclosure. The 14 point Ceres Climate Change Governance Checklist is recommended as a tool by companies to assist in the application of the Global Framework for Climate Risk Disclosure.”

Corporate Governance | Environmental Strategic Plan



- **Looking Ahead Into 2009:**
 - **Identifying opportunities to implement the Investment Committee's Environmental Strategic Plan through collaborative initiatives across asset classes**
 - **Identifying opportunities to improve environmental disclosure through company specific engagement consistent with CalPERS' enhanced Global Principles related to Ceres 14 Point Climate Change Governance Checklist**
 - **Calling on the new leadership in Congress and the U.S. Executive Office to pass strong national climate legislation**
 - **Advocating improved environmental disclosure targeted toward emerging markets**
 - **Working closely with INCR, UNPRI, and CDP to identify and implement opportunities to improve environmental disclosure**



Alternative Investment Management

Clean Energy & Technology Program Update

AIM| Clean Energy & Technology Program Overview



**The Program has evolved
in sophistication and
scale since**

•Phase I: CalPERS Environmental Technology Program

- 2004 Board directive allocating \$200 MM to invest in more efficient and less polluting environmental technology solutions
- PCG Asset Management selected as Consultant
- Primary Objective: attractive, long term, risk adjusted returns
- Ancillary Benefits: catalyzing the development of a cleaner environment, job creation, and encouraging institutional participation in an emerging sector
- CalPERS' \$200 MM as a lead investor helped catalyze over \$2 billion of investment from other investors

•Phase 2: \$400 MM Clean Energy & Technology Program

- CalPERS created a new investment vehicle allowing other institutional investors to participate
- Continuation and expansion of Phase I Program strategy
- Investment strategy expanded to include co-investment
- PCG Asset Management serves as discretionary Investment Manager
- Includes flexibility for CalPERS to co-invest additional capital should opportunity arise
- To date the Program has helped catalyze an additional \$3 billion of capital flows into the sector
- NYC Retirement Systems participating alongside CalPERS (\$200 MM)

AIM | Fundamental Trends are Favoring Clean Energy & Technology Investments



Markets are looking for and attributing value to solutions that are more efficient and less polluting than existing products, services or technologies

GLOBAL ENERGY CONDITIONS

- Global energy consumption forecast to increase substantially
- Commodity & natural resource price volatility
- Increasing demand for cleaner energy & fuel production capacity
- Supply constraints regarding traditional fossil fuel supplies
- Dependence on politically and economically unstable countries for oil & gas imports
- Massive capital requirements to upgrade aging global infrastructure

ENVIRONMENTAL AWARENESS

- Increasing awareness of risks and opportunities related to climate change
- Rapid emerging markets growth creates threat of accelerated environmental damage
- Corporate / public awareness on the rise
- Environmental issues impacting corporate strategy
- Introduction of high profile corporate strategic initiatives: GE, BP
- Congress has prioritized climate change in an unprecedented way

EVOLVING TECHNOLOGY

- Technological developments are making many clean technologies economic
- Rapidly increasing venture capital investments driving technological developments

PUBLIC POLICY DRIVERS

- Kyoto Protocol
- Robust European & Asian renewable energy mandates
- EU Emissions Trading Scheme
- Energy policy both a U.S. national security as well as environmental issue
- AB 32 in California

AIM | Clean Energy & Technology Program Status



Both phases of the Program are successfully deploying capital in line with their strategic mandates.

Phase I: Environmental Technology Program¹ (2005)

- Allocation: \$200 million
- Committed: \$191 million
- Contributed: \$88 million
- General Partners: 7
- Portfolio Companies: 74

Phase II: Clean Energy & Technology Fund¹ (2007)

- Allocation: \$400 million
- Committed: \$279 million
- Contributed: \$99 million
- General Partners: 8
- Portfolio Companies: 38
- Co-Investments: 6

AIM | Clean Energy & Technology Program Status

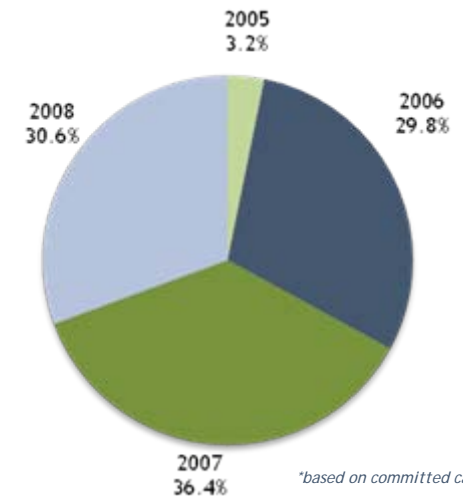


Investment activity has scaled prudently in line with an expanding, top-quality investable universe and growing overall market opportunity.

Total Program (Phase 1+2)¹

- Allocation: \$600 million
- Committed: \$470 million
- Contributed: \$187 million
- General Partners: 15
- Portfolio Companies: 112
- Co-Investments: 6

VINTAGE YEAR DIVERSIFICATION^{1*}



COMMITMENTS & CONTRIBUTIONS BY VINTAGE YEAR¹ (\$MM)



AIM | Clean Energy & Technology Program Performance



The Program is performing in line with expectations for a private equity portfolio at such an early stage of development.

	Phase I ¹	Phase II ¹	Aggregate ¹
Vintage Year	2005	2007	NA
Allocation	\$200 million	\$400 million,	\$600 million,
Committed	\$191 million	\$279 million	\$470 million
Contributed	\$88 million	\$99 million	\$187 million
Distributed	NM	\$5.8 million	\$5.9 million
Fair Market Value	\$95 million	\$93 million	\$188 million
Multiple	1.08x	1.00x	1.04x
IRR*	7.0%	-0.03%	5.0%
General Partners	7	8	15
Portfolio Companies	74	38	112
Co-Investments	0	6	6

¹ As of June 30, 2008

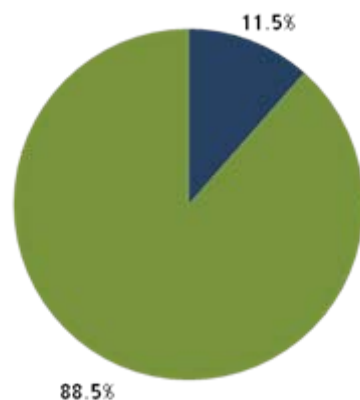
* At this stage of maturity the IRR's of both Programs are not meaningful, however, when compared to the relative benchmarks they are above median.

AIM | Clean Energy & Technology Program Portfolio Review



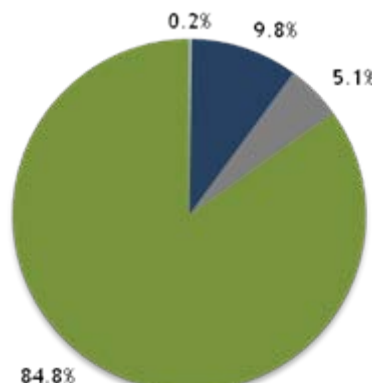
The Program is following a prudent diversification strategy in order to mitigate risk and enhance risk-adjusted returns.

STRUCTURAL DIVERSIFICATION¹²



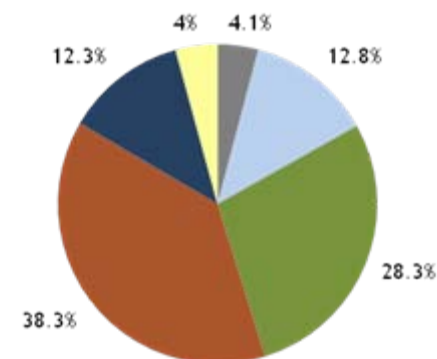
- Partnership Commitments
88.5%
- Co-Investments
11.5%

GEOGRAPHIC DIVERSIFICATION¹³



- USA & Canada
84.8%
- Europe
9.8%
- Latin America
5.1%
- Asia Pacific
0.2%

STRATEGY DIVERSIFICATION¹²



- Small Corp. Finance
28.3%
- VC - Diversified
38.3%
- Med. Corp. Finance
12.8%
- VC - Early
12.3%
- Growth Capital
4.1%
- Venture Infrastructure
4.0%

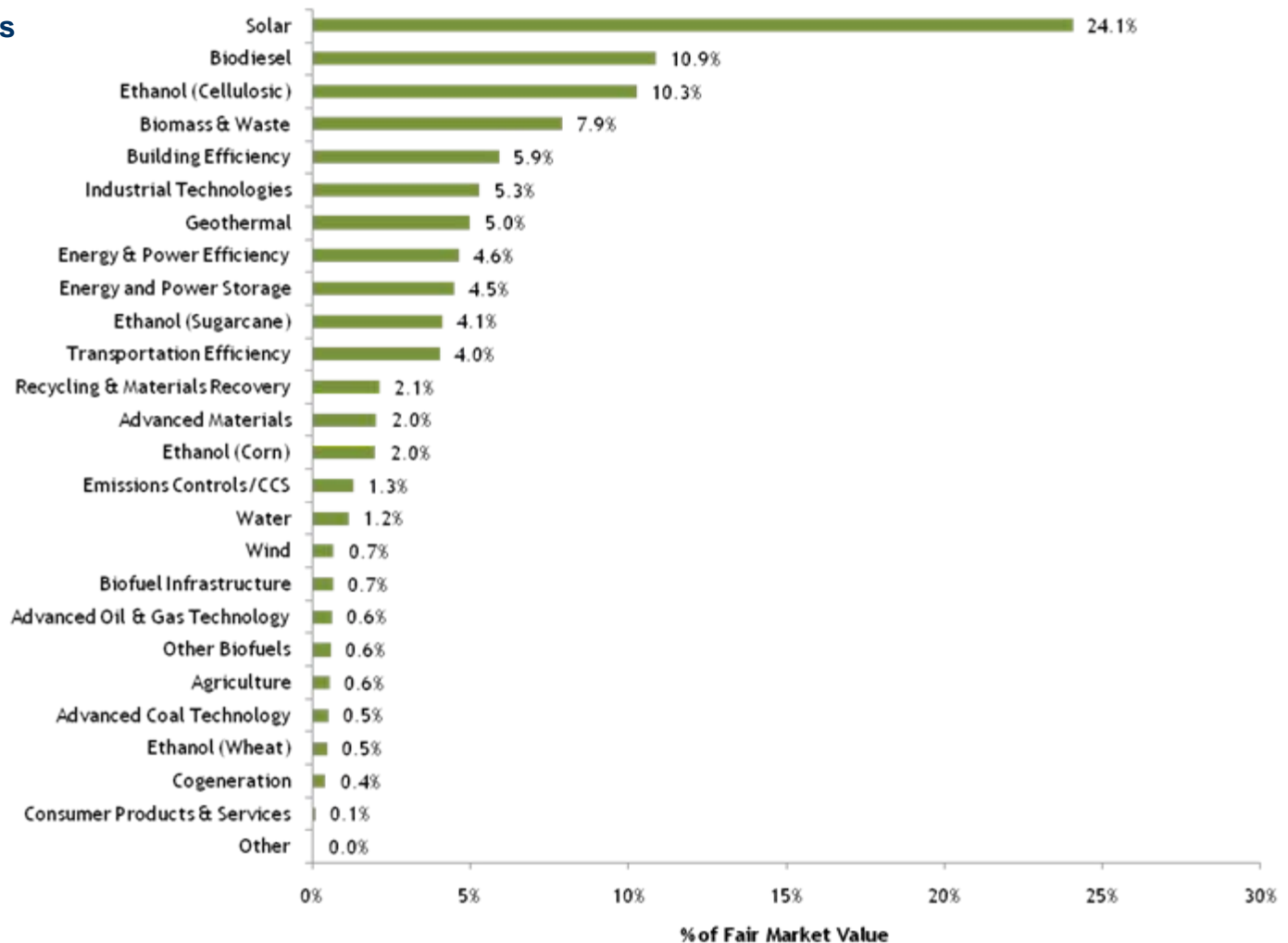
1 As of June 30, 2008
 2 Based on committed capital
 3 Based on fair market value

AIM | Clean Energy & Technology Program Portfolio Review



The Program's sub-sector diversification is representative of the broad nature of the opportunity and a key element of portfolio construction.

SUB-SECTOR DIVERSIFICATION¹



¹ As of June 30, 2008, based on fair market value

Case Study | Synapsense



COMPANY OVERVIEW

SynapSense Corporation, founded in 2006, is a leading provider of wireless instrumentation solutions with an initial focus on data centers. SynapSense's SynapSoft 4.0 is a wireless sensor network solution for energy benchmarking and complete data center monitoring that provides animated thermal, humidity and pressure maps to help manage power and thermal capacity to servers. This allows data center managers and facility operators to make changes to their floor plan and energy use while reducing the risk of downtime. In addition, the company's technology enables customers to reduce cooling power by 10-20%, resulting in a payback period of approximately one year without rebates.



DETAILS OF INVESTMENT COMMITMENT

Partner:

Nth Power

Sector:

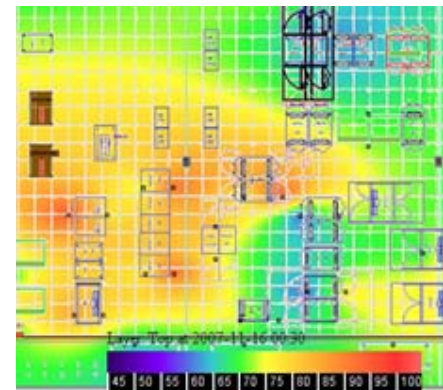
Energy & Power Efficiency

Headquarters:

California

INVESTMENT RATIONALE

- Market opportunity to address the relative inefficiencies in current data centers
- Greater need as commercial customers put emphasis on cost savings and efficiency
- Beta deployments with Fortune 500 companies, public institutions, and governments
- Short pay back period due to significant cost savings
- Recurring revenue model
- Licensing potential



Case Study | Hycrete



COMPANY OVERVIEW

Hycrete, Inc., based in Jersey City, NJ, has developed a proprietary technology that, when added to standard concrete mixtures, creates a hydrophobic cement that virtually eliminates corrosion. This level of protection yields excellent durability in concrete and creates the potential for numerous applications. By leveraging the core Hycrete technology, the company has developed a portfolio of product solutions ranging from admixtures to surface-applied waterproofers. The company is currently focused on large commercial projects demanding mission-critical sub grade, grade, and super grade water and corrosion protection. Applications include deep foundation slabs and walls, podium and plaza decks, roof, parking, and tunnel structures. Hycrete's admixture is also qualified for DOT applications and residential foundations.



DETAILS OF INVESTMENT COMMITMENT

Partners:

NGEN, RockPort

Sector:

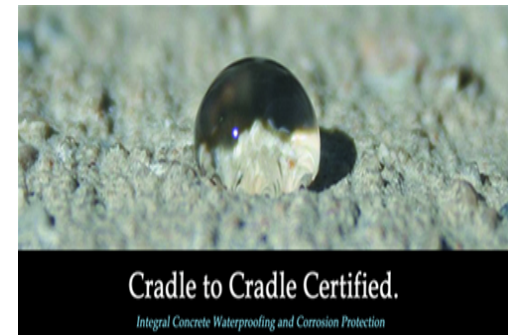
Building Efficiency

Headquarters:

New Jersey

INVESTMENT RATIONALE

- High value proposition with an environmentally-friendly liquid additive that replaces membrane wraps, a \$20B industry
- Lower technology risk
- Strong management team pulled from competitors
- Partnered with US Concrete, the number three concrete manufacturer, on distribution
- Building customer base and achieved customer validation
- LEED certified building material



Case Study | Plasco Energy Group



COMPANY OVERVIEW

PLASCO Energy Group, incorporated in 2005, is developing a municipal waste-to-energy process utilizing plasma arc gasification technology to produce low heating value gas (“syngas”) used to generate electricity. The Company’s proprietary PLASCO Conversion System (“PCS”) converts carbonaceous materials, such as municipal solid waste, into syngas and a commercially useful, inert solid, or “slag”. The Company’s pilot plant is located in Castellgali, Spain. In addition to the demonstration facility in Spain, the Firm has an 85 tonne-per-day facility in operation near Ottawa, Ontario. The Fund participated in a round of financing that is expected to help PLASCO: (i) build more plants; (ii) complete product enhancement; (iii) develop the sales pipeline; and (iv) provide an exit opportunity for long-term shareholders.



DETAILS OF INVESTMENT COMMITMENT

Partners:

First Reserve
CalSTRS

Sector:

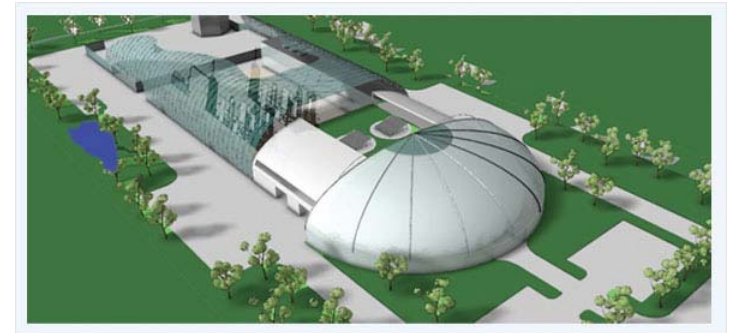
Biomass & Waste

Headquarters:

Canada

INVESTMENT RATIONALE

- Unique technology
- Potential global rollout opportunity
- Strong potential sales pipeline
- Potential waste to energy market leader
- Small, aesthetically pleasing, non-odor emitting plant design suitable for highly populated areas
- Ability to produce energy 24/7 from a renewable, low cost source





Case Study | Solar Reserve

COMPANY OVERVIEW

SolarReserve, a joint collaboration between United Technologies Corporation and US Renewables Group, is a developer of solar power towers with molten salt storage used in building utility-scale power plants. UTC is providing the technology license, manufacturing the solar tower and molten salt equipment, guarantee/warranty and engineering services for the projects. Upon completion of construction, SolarReserve will either operate these projects and receive a stream of revenue based on the amount of electricity sold to the grid, or transfer ownership of the project to a utility. The company expects to generate the majority of its revenues as a project developer through project development fees, consulting and licensing fees. The Fund believes that SolarReserve is the first solar energy company that can deliver cost competitive utility scale (100MW to 400MW) renewable energy using risk mitigated technology tested on a smaller scale, with the added benefit of being able to provide power on a 24 hour basis.



INVESTMENT RATIONALE

- Attractive returns and defensive transaction structure
- Lower costs gained with solar thermal plants versus distributed rooftop
- Advantages of Solar Thermal with Molten Salt Storage include:
 - Ability to deliver electricity on demand
 - Molten salt technology previously demonstrated
 - No natural gas required
 - Utility scale power
 - Intermittency of other renewable technologies (such as wind) limits value
 - Flexible reference solar plant design
- UTC Plant Guarantee
- Mitigation of most technical risks due to strong partners
- Strong Pipeline
- Strong management/founding team



DETAILS OF INVESTMENT COMMITMENT

Partners:
 US Renewables Group
 Citi Sustainable Development
 Good Energies

Sector:
 Solar

Headquarters
 California

AIM | Environmental Benefit Evaluation



In partnership with Environmental Capital Group, the Program has developed an innovative methodology for measuring and quantifying the environmental benefits of Portfolio activity.

Environmental Due Diligence (Pre-Investment)

- Unique and innovative environmental due diligence process used to determine whether an investment is likely to yield material net environmental benefits
- Evaluation is conducted in tandem with financial due diligence evaluation
- Formal environmental due diligence report issued prior to closing

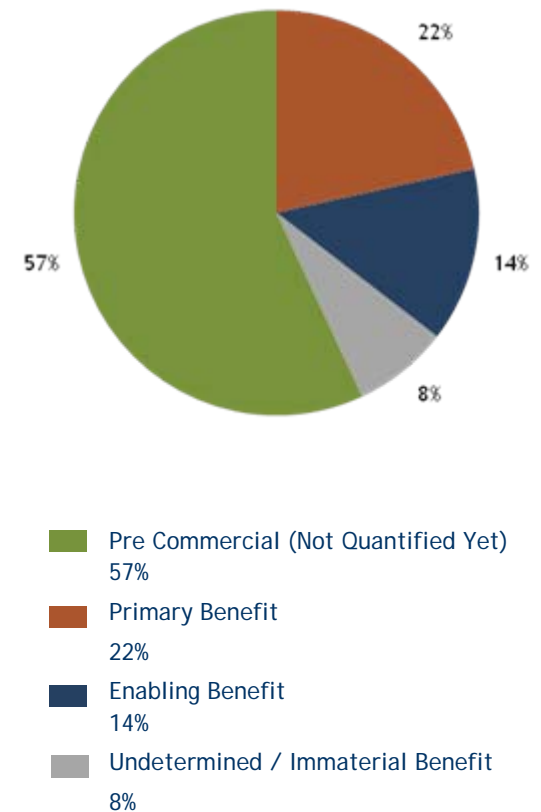
Environmental Measurement (Post-Investment)

- Analytical framework established to relate business results to quantified environmental impacts for each investment
- Data are collected and analyzed annually
- Annual report issued aggregating and reporting results at Program level

Current Evaluation of Program Portfolio

- It is estimated that approximately 80% of the companies in the portfolio will yield material and quantifiable environmental benefits once commercial activity is established

PROGRAM ENVIRONMENTAL BENEFITS¹



AIM | Environmental Benefit Analysis



While still in the early stages of its evolution, the Program has begun to catalyze material environmental benefits.

2007 Annual Equivalents:

Energy Savings

= 34,000 households

Renewable Power Production

= 69,000 households

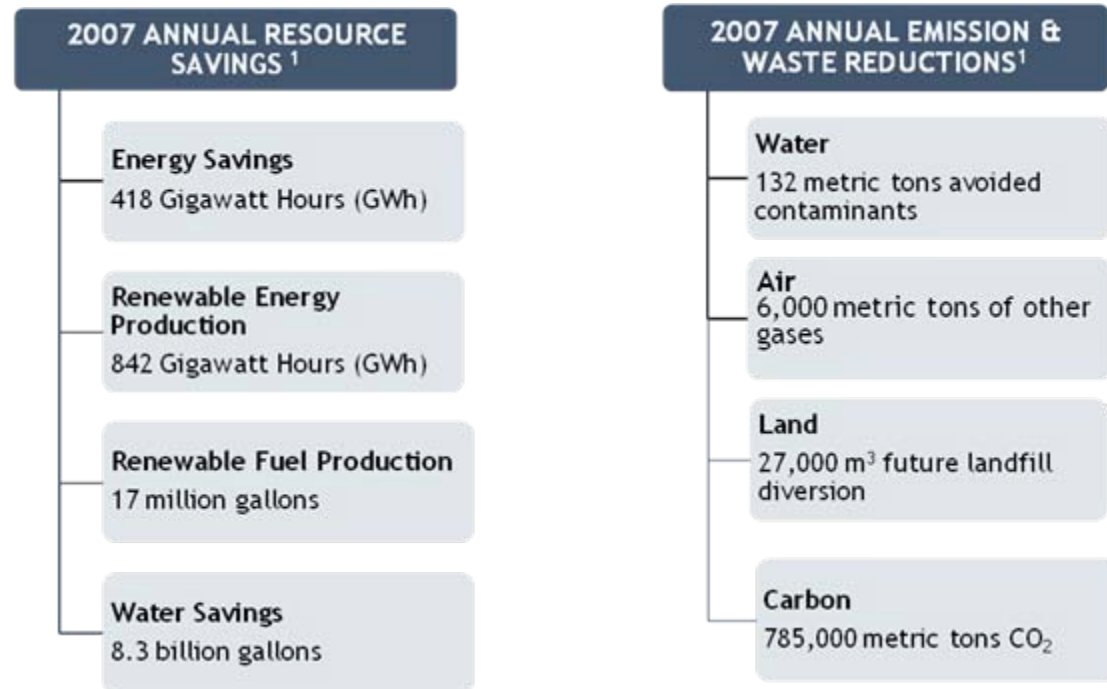
Water Savings

= 225,000 people

CO₂ Emission Reduction

= 39,000 people

AGGREGATE PORTFOLIO INVESTMENT ACTIVITY



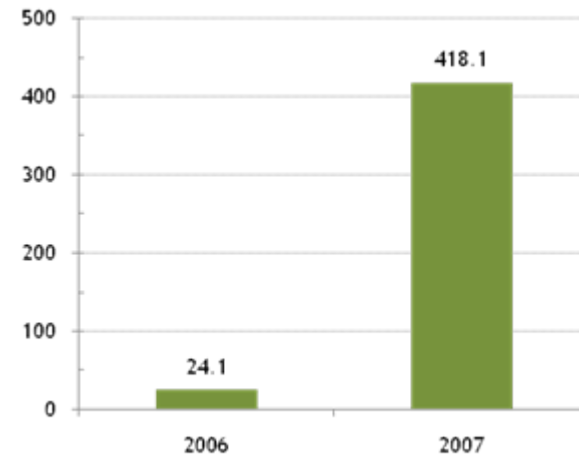
MATERIAL & QUANTIFIABLE NET ENVIRONMENTAL BENEFITS

AIM | Environmental Analysis

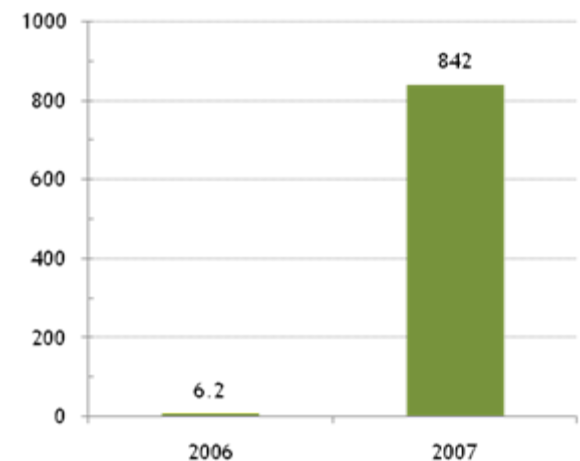


Environmental benefits generated by the Program should scale significantly in future years as additional capital is deployed and commercial activity begins to increase across the portfolio.

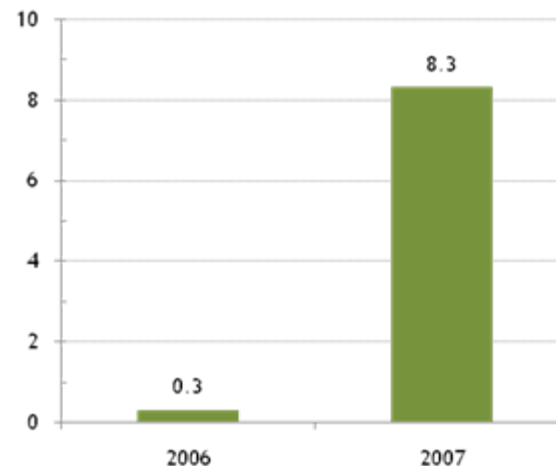
ELECTRICITY SAVINGS¹ (GWh)



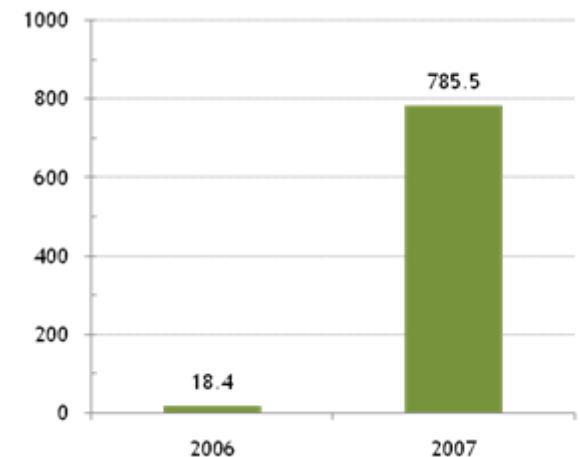
RENEWABLE POWER PRODUCTION¹ (GWh)



TOTAL WATER SAVINGS¹ (billion gallons)



CO2 EMISSION REDUCTIONS¹ (1,000 metric tons)



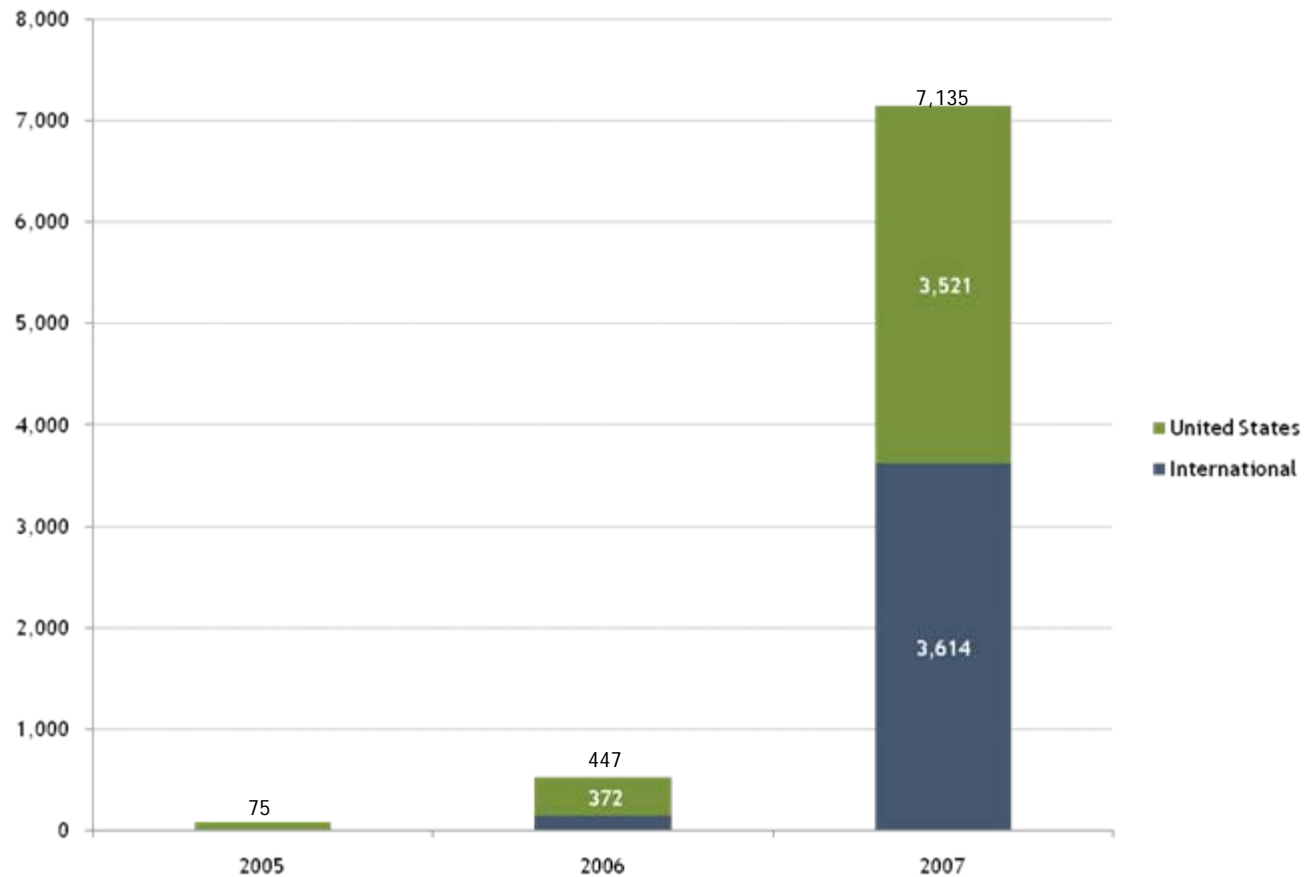
AIM | Employment Analysis



The Program is catalyzing meaningful employment growth in an emerging industry.

Due to the early stage nature of most of the companies in the portfolio, the majority of employment change year to year is new job creation.

EMPLOYMENT¹



¹ As of December 31, 2007

AIM | California Overview

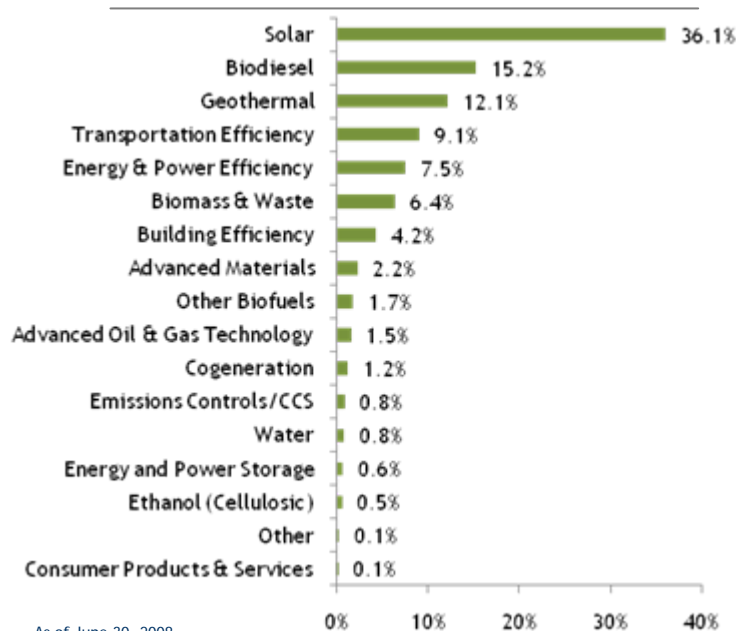


Activity within California is a core driver of overall Program activity and will continue to grow as the Program expands.

Program California Profile

- 6 General Partner headquarters¹
- 2 General Partner satellite offices¹
- 33 portfolio company corporate headquarters¹
- 1,886 employees, 28% of total employment²
- \$54 MM invested, 30% of total capital deployed¹

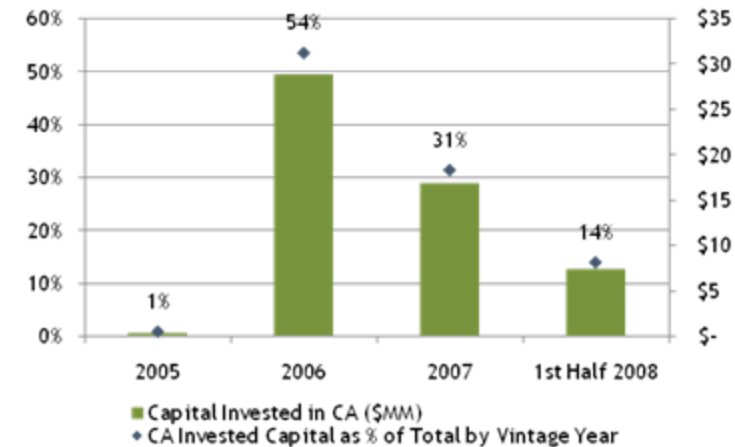
IN STATE SUB-SECTOR ALLOCATION¹ (FMV)



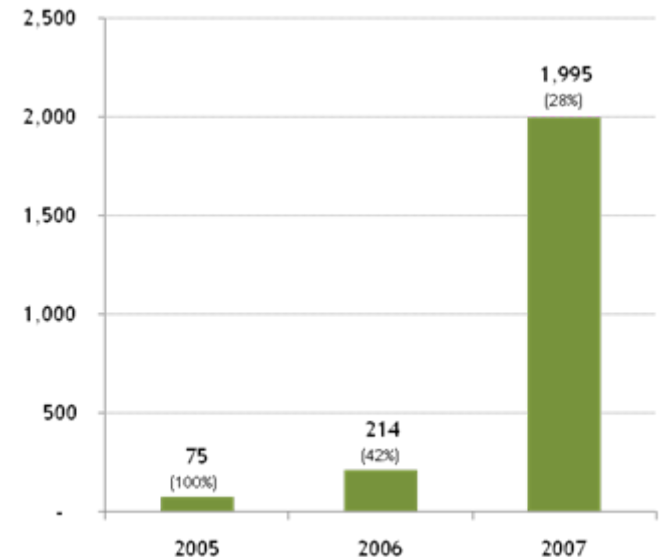
¹ As of June 30, 2008

² As of December 31, 2007

IN STATE CAPITAL DEPLOYMENT¹ (FMV)



IN STATE EMPLOYMENT²



AIM | Aggregate Sector Exposure



The CalPERS AIM Program has approximately \$1.1 billion of total exposure to the clean energy and technology sector.

- Through Phase I, Phase II and other AIM Partner relationships CalPERS has approximately \$1.1 billion of aggregate exposure to the clean energy and technology value chain
- Phase I: \$200 million
- Phase II: \$400 million
- Additional exposure through core partnerships in AIM portfolio: \$500 million

AIM | Conclusions



The Program is achieving all of its objectives.

- Through the Program CalPERS has established a leading profile as one of the most sophisticated global investors in the clean energy and technology sector
- The Program has attracted world class partners
- The Program portfolio is still young but is performing well and generating material and quantifiable environmental benefits
- The financial outlook for the portfolio is robust
- The Program is truly unique and pioneering with respect to its environmental benefit measurement system
- The Program has successfully drawn other institutional investors into the market
- The Program is supporting job growth particularly within the state of California



Inflation Linked Asset Class

Infrastructure Investment Policy

Infrastructure | Investment Policy



- An investment policy was adopted to guide CalPERS investments in infrastructure
- The following language was included in the policy:
 - CalPERS encourages the prudent use of sustainable development methods and operational practices when reasonable and economically feasible. Consideration shall be given to the use of renewable energy technologies, recycled and renewable building materials, air and water conservation technologies and practices, and efficient waste, recycle and disposal technology and practices. Consideration shall also be given to the environmental sustainability of investments including but not limited to energy efficiency, fuel economy, alternative energy generation and distribution impacts.



Cross Asset Class Initiative

INCR Manager Survey

Cross-Asset Class Initiative | INCR Manager Survey



- Initiated by State Controller John Chiang's in April 2008
- The survey is designed to assess investment managers' ability to evaluate climate risks and opportunities of companies in which they invest
- Staff is working closely with the Investor Network on Climate Risk (INCR) to develop the survey
- Survey results will be used to develop a set of best practices for the analysis and company valuation
- The survey is expected to be launched in late November
- The survey will be sent to a broad universe of public and private equity investment managers
- Reports on status and results will be made to the Investment Committee



Conclusion

- Significant progress made across portfolio
- Continuing to work collaboratively, both internally and externally, to identify and act upon environmentally-related risks and opportunities
- Will continue to update the Investment Committee



CalPERS Investment Office Environmental Initiatives Annual Update

November 2008